

ABSTRACT OF THE DISCLOSURE

A multi-point communications system is set forth herein. The communications system includes a receiver and transmitter disposed at a primary site for communication with a plurality of remote service units disposed at respective secondary sites. The receiver of the primary site receives OFDM/DMT signals over a number of transmission bins. A transmitter at the remote service unit includes an improved transmitter architecture. The transmitter comprises a first circuit for converting a signal into a first serial digital data stream and a second circuit for generating a second serial digital data stream from the first serial digital data stream of the first means. The second serial digital data stream is a digital representation of an OFDM/DMT signal that is to be transmitted to the receiver of the primary site and is generated from the first serial digital data stream through a modulated direct digital synthesis thereof. A third circuit is used to convert the second serial digital data stream into an analog OFDM/DMT signal for transmission to the receiver of the primary site.